

grain yield of the *North Finnish Black* variety was 12.6 kilos per *are*, while the foreign varieties yielded 16.4 kilos per *are*. These foreign sorts, it must be remarked, were all varieties which had been especially bred—some from Svalöf and others from the experiment station in Tystofte, in Denmark. During *six years of cultivation at Mustiala this North Finnish Black oat has lost none of its early-ripening qualities*. In good years the foreign-grown sorts here yield best, but in bad season *they yield nothing at all, while the North Finnish Black always yields about the same amount*. This variety deserves thorough trial in Alaska and the North Atlantic States, and should be used for breeding purposes wherever an early ripening variety of oat is desired. To get the best results it should be sown as early as possible. These various varieties have been analyzed in Mustiala, and it has been found that the *North Finnish Black* variety has 13.58 per cent of dry weight of *protein*, while the *South Finnish Brown* oat, for example, only 10.7 per cent, and the *South Finnish White* 11.77 per cent, and foreign oats only 11.79 per cent *protein*. Although, because of the small yield of the *North Finnish Black* variety, the actual protein quantity per *are* is smaller than that of the foreign sorts, the fact that the former is really richer in protein is an important point for plant breeders. The figures are: *North Finnish Black*, 1.54 kilos per *are*; foreign, including *Canada* variety, 1.73 per *are*. There have so far been very few experiments here in Finland *en gros*. Those few have been, however, very satisfactory." (*Fairchild*.) (See No. 5513.)

6175. HORDEUM TETRASTICHUM.**Barley.**

From Mustiala, Finland. Received through Messrs. Lathrop and Fairchild (No. 426, August 1, 1900), April 3, 1901.

Four-rowed Lapland. "This comes from Pillo, a town lying 30 kilometers north of the Arctic Circle. It is a stunted variety, which ripens at least 10 to 14 days earlier than *South Finnish* or *European* varieties, and although it does not produce large quantities of grain, but small kernels and in small quantity, it deserves the especial attention of plant growers in Alaska. Dr. G. Grotenfelt is at the present time busy with its culture and hopes to maintain its earliness and, by crossing, increase its productiveness. At the present time it is almost ripe here in the Doctor's experimental plats, while all other sorts (except No. 427, L. & F.) are quite green. For a very short-season locality and also for breeding purposes this may prove of considerable value where barley is grown. Secured through Dr. Grotenfelt's kindness." (*Fairchild*.)

6176. BRASSICA RAPA.**Turnip.**

From Mustiala, Finland. Received through Messrs. Lathrop and Fairchild (No. 428, August 1, 1900), April 3, 1901.

White Tankard Purple Top. "A Scottish variety of fodder turnip which has been grown here for fifty years. This variety, grown on Finnish soil, has proved superior to that grown from seed imported from Scotland, and it is worthy a trial in Alaska. Its growth in spring is particularly rapid, and it therefore escapes the attacks of insect enemies better than other sorts. Will be sent by Director G. Grotenfelt in November." (*Fairchild*.)

6177. FAGOPYRUM ESCULENTUM.**Buckwheat.**

From Mustiala, Finland. Received through Messrs. Lathrop and Fairchild (No. 430, August 1, 1900), April 3, 1901.

Finnish. "This buckwheat is for planting in Alaska. It is believed to be an early ripening variety. It is cultivated in east Finland on a large scale, but little in west Finland. It is now in bloom in Doctor Grotenfelt's experimental plats. Will be sent by Doctor Grotenfelt in November." (*Fairchild*.)

6178. BRASSICA CAMPESTRIS.**Turnip.**

From Mustiala, Finland. Received through Messrs. Lathrop and Fairchild (No. 429, August 1, 1900), April 3, 1901.

Mustiala. "A variety of Swedish turnip which has been originated here in Mustiala and grown for over fifteen years. It is the best sort that has been tested here and is very regular in growth and altogether to be recommended for fodder purposes in Alaska." (*Fairchild*.)